

Calculate the power number,  $p$ , as follows:

$$p = \text{PI gc}/(\rho L d^5 w^3)$$

Calculate the Schmidt number,  $ScG$ , as follows:

$$ScG = \mu a / (a Da)$$

Calculate the Fronde number,  $Fr$ , as follows:

$$Fr = d w^2 / gc$$

Calculate  $kG$  as follows:

$$kG = 1.35 \times 10^{-7} Re^{1.42} p^{0.4} ScG^{0.5} Fr^{-0.21} Da M W a / d, (m/s)$$

C. Calculate the partition coefficient,  $Keq$ , as follows:

$$Keq = H / [R(T+273)]$$

D. Calculate the overall turbulent mass transfer coefficient,  $Kt$ , as follows, (m/s):

$$1/Kt = 1/kL + 1/(Keq * kG)$$

E. Calculate the quiescent mass transfer coefficient,  $Kq$ , for the impoundment using Form 5.

F. Calculate the overall mass transfer coefficient,  $KL$ , for the impoundment as follows:

$$KL = (A - At) / A * Kq + At * Kt / A$$